US-PAT-NO: 6704448

DOCUMENT-IDENTIFIER: US 6704448 B1

TITLE: Device and method for

extracting specific region from

image and computer-readable

recording medium storing

region extraction program

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INVENTOR-INFORMATION:

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APPL-NO: 09/ 572870

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FOREIGN-APPL-PRIORITY-DATA:

COUNTRY APPL-NO

APPL-DATE

JP 11-148309 May 27,

1999

US-CL-CURRENT: 382/173, 382/118, 382/164,

382/192

ABSTRACT:

A region extraction device includes a segmentation unit for dividing an input image into a plurality of regions, a pixel number counting unit for determining the ratio of pixels of a predetermined

value to all pixels of each of the plurality of regions, and a region extracting unit for extracting a region in which the ratio determined by the pixel number counting unit exceeds a first value. Among the plurality of regions into which the input image is divided, a region is extracted in which the ratio determined by the pixel number counting unit exceeds the first value, so that a specific region can be extracted accurately even if the values of pixels in the specific region to be extracted are scattered in a wide range.

9 Claims, 12 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 10

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Brief Summary Text - BSTX (6):

Studies have heretofore been conducted to extract only the face region of a person included in an image. European Patent No. 756426 discloses an art of extracting a face area of a person included in an image. According to this art, a hue value is calculated from an input image signal, the number of pixels having the derived hue value is counted to determine the skin color of the person in the image, pixels having the determined hue value are extracted, and accordingly the face area of the person is extracted. More specifically, hue value H is calculated for each pixel by using

equation (1) below from an input image signal. Pixels included in the image signal include three data, i.e., R (red), G (green) and B (blue). ##EQU1##